

etching process as to an etching time. This situation of the method is illustrated in Figure 2H.

From Figure 2H it may be seen that functional layer 3, in  
5 certain areas, such as, for instance, in the area of first and  
second closing element 12, 13 and in the area above actuator  
chamber 15 has a lesser thickness than in other areas. In  
addition, because of the method described, second closing  
element 13 is formed in the shape of a sleeve. At the outer  
10 edge areas, edge etch stop layer 17 is situated between base  
plate 2 and functional layer 3, and second edge etch stop  
layer 18 is situated between functional layer 3 and second  
layer 19. The surface areas of first edge etch stop layer 17  
that have been etched away extend laterally beyond openings 7,  
15 15, 14 of base plate 2 in underetched chambers 26. Underetched  
chambers 26 are bordered laterally and above by polysilicon  
layer 3. Thereby the lateral underetching is precisely  
established by the surfaces of first etch stop layer 17.

*few 4/26/10* 20 Starting from the situation of the method in Figure 2H,  
subsequently bottom plate 5 and cover plate 4 are sealingly  
connected to base plate 2 and second functional layer 19. In  
this context, as the material for bottom plate 5 and cover  
plate 4, preferably glass is used, which is connected via an  
25 anodic bonding method to base plate 2 and second layer 19.  
Before the bonding method, in the predefined area an anti-  
bonding layer 34 is deposited onto cover plate 4 and bottom  
plate 5, which prevents a connection between second functional  
layer 19 and cover plate 4 or between base plate 2 and bottom  
30 plate 5. The areas are situated over second closing element 13  
and under piston 16. Thereby second closing element 13 and  
piston 16 are not bonded anodically and are consequently  
movable for opening and closing the outlet valve, or rather,  
for pumping.